IN THE UNITED STATES
PATENT AND TRADEMARK OFFICE

Patent Application

Inventor(s):	David J. Houck et al.
Case:	Houck 5-2-1-3 (LCNT/125696)
Serial No.:	10/657,864 **Group Art Unit:** 2416
Filed:	09/09/2003 **Confirmation #:** 2071
Examiner:	Wu, Jianye
Title:	METHOD AND APPARATUS FOR MANAGEMENT OF VOICE-OVER IP COMMUNICATIONS

**MAIL STOP APPEAL BRIEF-
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APPEAL BRIEF

Appellants submit this Appeal Brief to the Board of Patent Appeals and Interferences on appeal from the decision of the Examiner of Group Art Unit 2416 mailed January 29, 2009, finally rejecting claims 1-22.

In the event that an extension of time is required for this appeal brief to be considered timely, and a petition therefor does not otherwise accompany this appeal brief, any necessary extension of time is hereby petitioned for.

Appellants believe the only fee due is the $540 Appeal Brief fee which is being charged to counsel's credit card. Form PTO-2038 is attached. In the event Appellants are incorrect, the Commissioner is authorized to charge any other fees to Deposit Account No. 50-4802/ALU/125696.

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Real Party in Interest

The real party in interest is ALCATEL-LUCENT. The assignee of record is LUCENT TECHNOLOGIES INC, which merged with ALCATEL to form ALCATEL-LUCENT.

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Related Appeals and Interferences

Appellants assert that no appeals or interferences are known to Appellants, Appellants' legal representative, or assignee which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

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Status of Claims

Claims 1-22 are pending in the application. Claims 1–22 were originally presented in the application. Claims 1, 4-6, 12, 14, and 18-22 have been amended. The final rejection of claims 1-22 is appealed.

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Status of Amendments

All claim amendments have been entered.

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Summary of Claimed Subject Matter

Embodiments of the present invention are generally directed to a method and apparatus for determining whether to accept a new call into an IP network.

In one embodiment, a method is provided for determining whether to accept a new call to be routed from a first location to a second location via a network path in an IP network. At the first location, information is obtained, where the information is relevant to the quality of service of voice calls being transmitted from the first location to the second location via the network path. Based on the obtained information, a parameter indicative of a congestion status of the network path from the first location to the second location is calculated. The new call is accepted into the IP network at the first location in the case of the parameter not exceeding an upper threshold.

In one embodiment, an apparatus includes a first gateway for interfacing voice call data from a public switch telephone network to an internet protocol network. The first gateway includes three circuits. The first circuit is for passing voice call data of voice calls to the internet protocol network. The second circuit is for receiving quality-of-service information associated with voice calls currently being transmitted toward a second gateway via the first circuit. The third circuit is for calculating, based on the received quality-of-service information, a parameter indicative of a congestion status of a network path between the first gateway and the second gateway, and determining, by comparing the parameter to at least one threshold, whether a new voice call is to be accepted into the internet protocol network via the first circuit.

For the convenience of the Board of Patent Appeals and Interferences, Appellants' independent claims 1 and 14 are presented below with citations to various figures and appropriate citations to at least one portion of the specification for elements of the appealed claims.

Claim 1 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

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1.   (previously presented) A method (800) for determining whether to accept a new call to be routed from a first location (106/114) to a second location (108/116) via a network path in an IP network (118), comprising the steps of: (Pg. 4, Line 19 – Pg. 5, Line 20; Pg. 5, Lines 28 – 32; Pg. 6, Line 18 – Pg. 7, Line 7)

(a) obtaining (804), at the first location, information relevant to the quality of service of voice calls being transmitted from the first location (106/114) to the second location (108/116) via the network path; (Pg. 5, Line 21 – Pg. 7, Line 30; Pg. 9, Lines 13 – 26; Pg. 10, Lines 1 – 7)

(b) calculating (806), based on said information, a parameter indicative of a congestion status of the network path from the first location (106/114) to the second location (108/116); and (Pg. 6, Line 9 – Pg. 7, Line 30; Pg. 9, Lines 13 – 26; Pg. 10, Lines 8 – 30)

(c) accepting (810, 812, 814, 816) the new call into the IP network (118) at the first location (106/114) in the case of said parameter not exceeding an upper threshold. (Pg. 9, Lines 13 – 26; Pg. 10, Line 31 – Pg. 11, Line 23)

Claim 14 positively recites (with reference numerals, where applicable, and cites to at least one portion of the specification added):

14.   (previously presented) Apparatus comprising a first gateway (114) for interfacing voice call data from a public switch telephone network (110) to an internet protocol network (118), said first gateway (114) comprising: (Pg. 4, Line 19 – Pg. 5, Line 20; Pg. 5, Lines 28 – 32; Pg. 6, Line 18 – Pg. 7, Line 7; Pg. 8, Lines 2 – 7)

a first circuit (306x) for passing said voice call data of voice calls to the internet protocol network (118); (Pg. 8, Lines 7 – 9)

a second circuit (304x) for receiving quality-of-service information associated with voice calls currently being transmitted toward a second gateway (116) via the first circuit (306x); and (Pg. 8, Lines 9 – 11)

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PAGE 9/34 * RCVD AT 8/31/2009 2:55:25 PM [Eastern Daylight Time] * SVR:USPTO-EFXRF-6/7 * DNIS:2738300 * CSID:7328428388 * DURATION (mm-ss):12-10

a third circuit (302) for: (Pg. 8, Lines 11– 13)

calculating, based on the received quality-of-service information, a parameter indicative of a congestion status of a network path between the first gateway (114) and the second gateway (116); and (Pg. 6, Line 9 – Pg. 7, Line 30; Pg. 9, Lines 13 – 26; Pg. 10, Lines 8 – 30)

determining, by comparing said parameter to at least one threshold, whether a new voice call is to be accepted into the internet protocol network (118) via the first circuit (306x). (Pg. 9, Lines 13 – 26; Pg. 10, Line 31 – Pg. 11, Line 23)

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Grounds of Rejection to be Reviewed on Appeal

Claims 1-15 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent Application Publication No. 2004/0022237 by Elliott et al. (hereinafter, "Elliott") in view of IETF RFC 3550 entitled "RTP: A Transport Protocol for Real-Time Applications" by H. Schulrinne et al. (hereinafter, "RFC 3550").

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott in view of RFC 3550, further in view of U.S. Patent Application Publication No. 20040252686 A1 by Hooper et al. (hereinafter, "Hooper").

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Arguments

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I.   Rejection of Claims 1-15 and 18-22 Under 35 U.S.C. 103(a)

Claims 1-15 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott in view of RFC 3550. The rejection is traversed.

A.   Claims 1-13

Claims 1-13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott in view of RFC 3550. The rejection is traversed.

Elliott and RFC 3550, alone or in combination, fail to teach or suggest all the claim elements of Appellants' claim 1.

Elliott discloses a system for communicating voice and data over a packet-switched network, where the packet-switched network is adapted to coexist and communicate with a legacy PSTN. The system permits packet switching of voice calls and data calls through a data network. The system includes soft switch sites, gateway sites, a data network, a provisioning component, a network event component and a network management component. The system interfaces with customer facilities, carrier facilities, and legacy signaling networks in order to handle calls between any combination of on-network and off-network callers. The soft switch sites, which provide call processing for the voice network architecture, manage the gateway sites, requesting the set-up and tear-down of calls. The gateway sites originate and terminate calls between calling parties and called parties through the data network. The data network connects one or more of the soft switch sites to one or more of the gateway sites. (Elliott, Abstract).

RFC 3550 discloses the Real-Time Transport Protocol (RTP). Specifically, RFC 3550 discloses message formats, header fields, session multiplexing, and other specifics of the RTP. Additionally, RFC 3550 discloses details of the RTP Control Protocol (RTCP), such as packet formats, packet send and receive rules, and other specifics of the RTCP.

Elliott and RFC 3550, however, alone or in combination, fail to teach or suggest at least the limitations of "calculating, based on said information, a parameter indicative

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of a congestion status of the network path from the first location to the second location," and "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1. Appellants address these limitations below.

"Calculating" Limitation:

Elliott and RFC 3550, alone or in combination, fail to teach or suggest at least the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," as claimed in Appellants' claim 1.

Elliott fails to teach or suggest the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," as claimed in Appellants' claim 1.

First, Appellants submit that, since Elliott fails to teach or suggest information relevant to the quality of service of voice calls being transmitted from a first location to a second location via a network path, Elliott also must fail to teach or suggest performing any action on the basis of such information. Thus, at least for this reason, Elliott fails to teach or suggest the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location." A discussion of the failure of Elliott to teach or suggest information relevant to the quality of service of voice calls being transmitted from a first location to a second location via a network path follows.

In the Final Office Action, the Examiner asserts that Elliott discloses the limitation of "obtaining, at the first location, information relevant to the quality of service of voice calls being transmitted from the first location to the second location via the network path." More specifically, with respect to this limitation, the Examiner asserts that elements 126 and 130 of Elliott teach the first and second locations of Appellants' claim 1, respectively, that the term "packet loss" disclosed in Elliott teaches the "information relevant to the quality of service of voice calls" of Appellants' claim 1, and that a path from terminal 102 to terminal 120 teaches the "network path" of Appellants' claim 1. (See Final Office Action, Pgs. 3 – 4). Appellants disagree.

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In response, Appellants maintain that Elliott fails to teach or suggest the limitation of "obtaining, at the first location, information relevant to the quality of service of voice calls being transmitted from the first location to the second location via the network path" at least for the following reasons.

First, Appellants submit that the Examiner's attempted application of Elliott to Appellants' claim 1 fails to meet the limitations of Appellants' claim 1. In the rejection, the Examiner asserts that carrier facility 126 and carrier facility 130 of Elliott are the first and second locations of Appellants' claim 1, respectively, and that the "network path" of Appellants' claim 1 is disclosed by a path between terminal 102 connected to carrier facility 126 and terminal 130 connected to carrier facility 130.

As recited in Appellants' claim 1, the claimed method is a method for determining whether to accept a new call to be routed from a first location to a second location via a network path in an IP network. Additionally, Appellants' claim 1 references a parameter indicative of a congestion status of the network path from the first location to the second location and accepting a new call into the IP network at the first location. In other words, in Appellants' claim 1, the network path is a path, in an IP network, between a first location and a second location, where the first and second locations are at the edge of the IP network.

By contrast, the Examiner's attempted application of Elliott to Appellants' claim 1: (a) relies upon locations which are not associated with an IP network (namely, the carrier facilities 126 and 130 are considered to be part of the legacy PSTN network and are not at the edge of data network 112 of Elliott), and (b) relies upon a network path that is an end-to-end path that includes both an IP network and a legacy PSTN network. Elliott is devoid of any teaching or suggestion of any parameter association with a path between carrier facility 126 and carrier facility 130 (namely, terminals 102 and 120 each are connected to data network 112 via legacy PSTN equipment). Elliott also is devoid of any teaching or suggestion of acceptance of a call into an IP network at carrier facility 126. Rather, from this comparison of the portions of Elliott cited by the Examiner to the limitations of Appellants' claim 1, Appellants maintain that it is clear that the Examiner's application of Elliott to Appellants' claim 1 fails to meet the limitations of Appellants' claim 1.

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Second, Appellants submit that the general term "packet loss" cited by the Examiner clearly does not teach or suggest the specific limitation of obtaining, <u>at a first location</u>, information relevant to the quality of service of voice calls <u>being transmitted from the first location to the second location</u> <u>via a network path</u>, as claimed in Appellants' claim 1.

In the Office Action, the Examiner cites a specific portion of Elliott (namely, Para. [1493]), asserting that the cited portion of Elliott discloses this limitation. The cited portion of Elliott, however, merely states that "FIG. 21B illustrates an example outage recovery scenario 2116. Outage recovery scenario 2116 can be used in the event of, for example, a fiber cut, a period of unacceptable latency or a period of unacceptable packet loss failure in data network 112." In other words, the cited portion of Elliott merely states that an outage recovery scenario can be used in the case of an unacceptable packet loss failure. A <u>statement that an outage recovery scenario can be used in the case of an unacceptable packet loss failure</u>, as disclosed in Elliott, simply does not teach or suggest obtaining, <u>at a first location</u>, information relevant to the quality of service of voice calls <u>being transmitted from the first location to the second location</u> <u>via a network path</u>, as claimed in Appellants' claim 1.

Appellants submit that the Examiner has failed to cite any portion of Elliott that discloses Appellants' specific limitation of obtaining, <u>at a first location</u>, information relevant to the quality of service of voice calls <u>being transmitted from the first location to the second location</u> <u>via a network path</u>, as claimed in Appellants' claim 1.

For example, even assuming *arguendo* that carrier facilities 126 and 130 of Elliott may be properly held to disclose the first and second locations of Appellants' claim 1 (which, at least for the reasons provided above, Appellants maintain they cannot), the Examiner has failed to cite any portion of Elliott that discusses packet loss within the context of a network path between elements 126 and 130, much less that information indicative of packet loss is obtained at element 126 for voice calls being transmitted from element 126 to element 130 via a network path.

Similarly, for example, the Examiner has failed to cite any portion of Elliott that discusses packet loss within the context of a network path between gateways 108 and 110 which interface with data network 112, much less that information indicative of packet

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loss is obtained at gateway 108 for voice calls being transmitted from gateway 108 to gateway 110 via a specific network path in data network 112.

Rather, the Examiner mere points to disparate portions of Elliott and concludes that Elliott discloses this limitation of Appellants' claim 1, without citing any portion of Elliott which supports such a conclusion. In Appellants' previous responses, Appellants have requested that the Examiner point out exactly where in Elliott there is any teaching or suggestion that element 126 obtains information relevant to the quality of service of voice calls being transmitted from element 126 to element 130 via a network path; however, the Examiner has not yet provided such information. Furthermore, Appellants also have requested that the Examiner point out exactly where in Elliott there is any such teaching or suggestion related to other elements of Elliott. Appellants maintain that Elliott is devoid of any such teaching or suggestion and, therefore, fails to teach or suggest obtaining information relevant to the quality of service of voice calls being transmitted from the first location to the second location via the network path, as claimed in Appellants' claim 1.

Thus, at least for these reasons, Elliott fails to teach or suggest information relevant to the quality of service of voice calls being transmitted from a first location to a second location via a network path, and, therefore, fails to teach or suggest the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," as claimed in Appellants' claim 1.

Second, Appellants submit that, even assuming *arguendo* that Elliott may be held to disclose information relevant to the quality of service of voice calls being transmitted from a first location to a second location via a network path (which, at least for the reasons described hereinabove, Appellants maintain it cannot), Elliott still fails to teach or suggest the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location."

Appellants maintain that Elliott fails to teach or suggest a parameter indicative of a congestion status of a *network path from a first location to a second location*, as claimed in Appellants' claim 1. In the Office Action, the Examiner cites a specific

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portion of Elliott (namely, Packet Loss Threshold in Table 147), asserting that the cited portion of Elliott discloses this limitation. Elliott, however, is devoid of any teaching or suggestion that the Packet Loss Threshold listed in Table 147 is a parameter that is indicative of a congestion status *of a network path from a first location to a second location*. A mere listing of the term "Packet Loss Threshold" in a table, as disclosed in Elliott, clearly does not teach or suggest the more specific limitation a parameter that is indicative of a congestion status *of a network path from a first location to a second location*. Furthermore, with respect to Table 147, Elliott merely states that Table 147 describes "system configuration messages." (See Elliott, Para. [1553] – [1554]). Elliott is devoid of any teaching or suggestion that the Packet Loss Threshold listed in Table 147 is associated with a network path from a first location to a second location. Thus, even assuming *arguendo* that the Packet Loss Threshold listed in Table 147 of Elliott may be interpreted as disclosing a parameter indicative of a congestion status, Elliott would still fail to teach or suggest a parameter indicative of a congestion status of a network path from a first location to a second location, as claimed in Appellants claim 1.

Thus, at least for these reasons, Elliott fails to teach or suggest the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," as claimed in Appellants' claim 1.

Furthermore, RFC 3550 fails to bridge the substantial gap between Elliott and Appellants' claim 1.

RFC 3550 fails to teach or suggest the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," as claimed in Appellants' claim 1.

RFC 3550 discloses sending RTCP sender and receiver reports and, further, discloses analysis of the RTCP sender and receiver reports. (RFC 3550, Section 6, Pg. 19).

RFC 3550, however, is devoid of any teaching or suggestion of using information included in the RTCP sender and receiver reports for calculating a parameter indicative of a congestion status of a network path between a first location and a second location.

Rather, with respect to analysis of the RTCP sender and receiver reports, RFC 3550 primarily describes each of the fields of the RTCP sender and receiver reports and then includes general statements indicating the manner in which the information from the RTCP sender and receiver reports may be used.

For example, RFC 3550 states that:

"Sending reception feedback reports to all participants allows one who is observing problems to evaluate whether those problems are local or global. With a distribution mechanism like IP multicast, it is also possible for an entity such as a network service provider who is not otherwise involved in the session to receive the feedback information and act as a third-party monitor to diagnose network problems."
[RFC 3550, Section 6, Pg. 19].

Similarly, for example, RFC 3550 states that:

"It is expected that reception quality feedback will be useful not only for the sender but also for other receivers and third-party monitors. The sender may modify its transmissions based on the feedback; receivers can determine whether problems are local, regional or global; network managers may use profile-independent monitors that receive only the RTCP packets and not the corresponding RTP data packets to evaluate the performance of their networks for multicast distribution."
[RFC 3550, Section 6.4.4, Pg. 42].

These portions of RFC 3550 are devoid of any teaching or suggestion of calculating a parameter indicative of a congestion status of a network path between a first location and a second location based information included in the RTCP sender and receiver reports.

Furthermore, in the Final Office Action, the Examiner cites a specific portion of RFC 3550 (namely, packet loss ratio on lines 1-11 of the last paragraph of Pg. 43 of RFC 4330), asserting that this portion of RFC 3550 discloses "calculating a parameter indicative of a congestion status." (Final Office Action, Pg. 5). Appellants disagree.

First, Appellants submit that even assuming *arguendo* that the Examiner's assertion with respect to RFC 3550 is correct (i.e., that RFC 3550 discloses the more general idea of calculating a parameter indicative of a congestion status), RFC 3550 fails to teach or suggest calculating a parameter indicative of a congestion status <u>of a network path between a first location and a second location</u>.

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Appellants note that RFC 3550 is devoid of the term "packet loss ratio" that is referenced by the Examiner, however, RFC 3550 does reference a "packet loss rate" and a "packet loss fraction" in a nearby portion of RFC 3550. As disclosed in RFC 3550, the packet loss rate and packet loss fraction are described as follows:

> "An example calculation is the packet loss rate over the interval between two reception reports. The difference in the cumulative number of packets lost gives the number lost during that interval. The difference in the extended last sequence numbers received gives the number of packets expected during the interval. The ratio of these two is the packet loss fraction over the interval. This ratio should equal the fraction lost field if the two reports are consecutive, but otherwise it may not. The loss rate per second can be obtained by dividing the loss fraction by the difference in NTP timestamps, expressed in seconds."
>
> [RFC 3550, Section 6.4.4, Pg. 42].

RFC 3550 is devoid of any teaching or suggestion that the "packet loss rate" or the "packet loss fraction" are parameters indicative of a congestion status of a network path from a first location to a second location. Thus, RFC 3550 fails to teach or suggest calculating a parameter indicative of a congestion status of a network path between a first location and a second location.

Second, Appellants submit that, as described hereinabove, Elliott fails to teach or suggest a parameter indicative of a congestion status of a network path between a first location and a second location.

Thus, based on the two preceding points, Appellants submit that, even assuming *arguendo* that the Examiner's assertion with respect to RFC 3550 is correct (i.e., that RFC 3550 discloses calculating a parameter indicative of a congestion status), Elliott and RFC 3550 each fail to teach or suggest a parameter indicative of a congestion status of a network path between a first location and a second location and, thus, a combination of Elliott and RFC 3550 would fail to teach or suggest "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," as claimed in Appellants' claim 1.

As such, at least for these reasons, Elliott and RFC 3550, alone or in combination, fail to teach or suggest at least the limitation of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," as claimed in Appellants' claim 1.

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"Accepting" Limitation:

Elliott and RFC 3550, alone or in combination, fail to teach or suggest at least the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1.

Elliott fails to teach or suggest the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1.

First, Appellants note that, since Elliott fails to teach or suggest a parameter indicative of a congestion status of a network path between a first location and a second location (at least for the reasons provided hereinabove), Elliott also must fail to teach or suggest performing any action on the basis of such a parameter. Thus, at least for this reason, Elliott fails to teach or suggest the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold."

Second, Appellants submit that, even assuming *arguendo* that Elliott may be held to disclose a parameter indicative of a congestion status of a network path between a first location and a second location (which, at least for the reasons described hereinabove, Appellants maintain it cannot), Elliott still fails to teach or suggest the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold."

Elliott is devoid of any teaching or suggestion of accepting a new call into an IP network at a first location in the case of a parameter not exceeding an upper threshold. Rather, with respect to call admission control, Elliott merely includes a general statement indicating that IP classes of service are included as part of the IETF's integrated services architecture (ISA), where proposed elements of the ISA include the resource reservation protocol (RSVP), a defined packet scheduler, a call admission control module, an admission control manager, and a set of policies for implementing these features. (See Elliott, Para. [1032]).

In the Final Office Action, the Examiner cites a specific portion of Elliott (namely, the Packet Loss Threshold of Table 147) asserting that the cited portion of

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Elliott discloses this limitation. Specifically, referencing this limitation of Appellants' claim 1, the Examiner states "...set up a call is a packet loss does not exceed the Packet Loss Threshold of Table 147; or a call will always be accepted if the an upper threshold is selected as 0." (Final Office Action, Pg. 5). Appellants respectfully disagree.

With respect to the first portion of the Examiner's statement, Appellants submit that there is no basis in Elliott for this portion of the Examiner's statement. Here, the Examiner appears to find the term "Packet Loss Threshold" in Elliott, and then conclude that a call is set up if a packet loss does not exceed the Packet Loss Threshold, even though there appears to be no basis in Elliott for such a conclusion. Appellants submit that just because the Examiner states in the Final Office Action that a call is set up if a packet loss does not exceed the Packet Loss Threshold of Elliott does not mean that Elliott teaches or even suggests that a call is set up if a packet loss does not exceed the Packet Loss Threshold of Elliott. Indeed, contrary to the Examiner's assertion, Elliott is devoid of any teaching or suggestion that a call is set up if a packet loss does not exceed the Packet Loss Threshold of Elliott. Rather, with respect to the Packet Loss Threshold listed in Table 147, Elliott merely states that Table 147 describes "system configuration messages." (See Elliott, Para. [1553] – [1554]). The Examiner has failed to cite any portion of Elliott that teaches or suggests that the Packet Loss Threshold in Table 147 is used in the manner asserted by the Examiner. The Examiner provides <u>no support for this conclusion</u> and, thus, a rejection of Appellants' claim 1 on the basis of this conclusion cannot be maintained. Thus, Appellants submit that the portion of Elliott cited by the Examiner clearly fails to teach or suggest the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1.

With respect to the second portion of the Examiner's statement, Appellants submit that the Examiner's example does not teach or suggest the limitation of Appellants' claim 1.

First, Appellants submit that the Examiner's example is flawed and, thus, is not a proper basis for rejection of Appellants' claim 1. In addressing this limitation of Appellants' claim 1, the Examiner merely fabricates an example believing that it fits the language of this limitation of Appellants' claim 1. <u>The Examiner's example is flawed</u>.

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Appellants' limitation states "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold." Based on the Examiner's example, the parameter would have to be a negative number in order for the call to be accepted (i.e., in order to not exceed 0). In the Examiner's example, a packet loss is cited as the being the parameter that is compared to the Packet Loss Threshold of Elliott. Thus, in the Examiner's example, a negative packet loss would be required in order for a call to be accepted in the network. Appellants note that a packet loss parameter is indicative of packet loss and, accordingly, would not be a negative number. As a result, it appears that, in the Examiner's example, calls would never be accepted into the IP network. Thus, the example fabricated by the Examiner for purposes of rejecting Appellants' claim 1 is flawed and, therefore, is not a proper basis for rejection of Appellants' claim 1.

Second, Appellants submit that, even assuming *arguendo* that the Examiner's example was not flawed (which Appellants maintain that it is), the Examiner's example still would be insufficient to establish that Elliott discloses this limitation of Appellants' claim 1. The Examiner has failed to cite any basis for this example. The Examiner has failed to cite any portion of Elliott which could serve as the basis for this example. Furthermore, the Examiner has failed to cite any other basis for this example. Rather, the Examiner merely fabricates the example in an attempt to fit the language of this limitation of Appellants' claim 1. Thus, at least for this reason, Appellants maintain that the Examiner's example is insufficient to establish that Elliott discloses this limitation of Appellants' claim 1.

Thus, at least for these reasons, Elliott fails to teach or suggest the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1.

Furthermore, RFC 3550 fails to bridge the substantial gap between Elliott and Appellants' claim 1.

RFC 3550 fails to teach or suggest the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1.

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RFC 3550 discloses sending RTCP sender and receiver reports and, further, discloses use of the RTCP sender and receiver reports to compute different performance values. (RFC 3550, Section 6, Pg. 19).

RFC 3550, however, is devoid of any teaching or suggestion of accepting a new call into an IP network at a first location in the case of a parameter not exceeding an upper threshold.

As such, Elliott and RFC 3550, alone or in combination, fail to teach or suggest at least the limitation of "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1.

Conclusion:

Thus, at least for these reasons, claim 1 is allowable over the combination of Elliott and RFC 3550. Furthermore, since all of the dependent claims that depend from independent claim 1 include all the limitations of independent claim 1 from which they ultimately depend, each such dependent claim also is allowable over the combination of Elliott and RFC 3550.

Therefore, the rejection should be withdrawn.

B.   Claims 14-15 and 18-22

Claims 14-15 and 18-22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott in view of RFC 3550. The rejection is traversed.

Examiner Failed to Establish a Prima Facie Case of Obviousness

Appellants respectfully submit that the Examiner has failed to establish a prima facie case of obviousness of Appellants' claim 14, because the Examiner has failed to consider all of the words of Appellants' claim 14 in judging the patentability of Appellants' claim 14.

According to MPEP §2143.03, "[a]ll words in a claim must be considered in judging the patentability of that claim against the prior art." (quoting, In re Wilson, 424 F.2d 1382, 1385, 165 USPQ 494, 496 (CCPA 1970)).

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Here, the Examiner has failed to consider all of the words of Appellants' claim 14 in judging the patentability of Appellants' claim 14. Namely, in the Final Office Action the Examiner combines the rejections of Appellants' claims 1 and 14 without any regard for the differences between these claims. (See Final Office Action, Pg. 4). The Examiner has failed to cite any portion of Elliott or RFC 3550, or any other reference, which teaches or suggests the specific limitations of Appellants' claim 14. The Final Office Action is completely devoid of any mention of any of the circuits of Appellants' claim 14. The Examiner simply does not address the circuits as claimed in Appellants' claim 14. Thus, the Examiner clearly has not considered these limitations in judging the patentability of Appellants' claim 14.

Thus, Appellants submits that, since the Examiner failed to consider all of the words of Appellants' claim 14 in judging the patentability of claim 14, the Examiner has failed to establish a *prima facie* case of obviousness of Appellants' claim 14. Thus, the rejection of Appellants' claim 14 must be withdrawn.

References Fail to Teach or Suggest All Claim Limitations

Elliott and RFC 3550, alone or in combination, fail to teach or suggest all the claim elements of Appellants' claim 14.

As described hereinabove, Elliott and RFC 3550, alone or in combination, fail to teach or suggest the limitations of "calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location," and "accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold," as claimed in Appellants' claim 1.

Appellants' claim 14 includes similar limitations of "a third circuit for: calculating, based on the received quality-of-service information, a parameter indicative of a congestion status of a network path between the first gateway and the second gateway; and determining, by comparing said parameter to at least one threshold, whether a new voice call is to be accepted into the internet protocol network via the first circuit."

Thus, Appellants submit that, at least for the reasons provided hereinabove with respect to Appellants' claim 1 (which reasons, for purposes of completeness, are considered to be incorporated into this section of Appellants' Appeal Brief which

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addresses the rejection of Appellants' claim 14), Elliott and RFC 3550 fail to teach or suggest at least the limitations of "a third circuit for: calculating, based on the received quality-of-service information, a parameter indicative of a congestion status of a network path between the first gateway and the second gateway; and determining, by comparing said parameter to at least one threshold, whether a new voice call is to be accepted into the internet protocol network via the first circuit," as claimed in Appellants' claim 14.

Furthermore, Appellants submit that Elliott and RFC 3550, alone or in combination, fail to teach or suggest all claim elements of Appellants' claim 14.

Namely, Elliott and RFC 3550, alone or in combination, fail to teach or suggest the first, second, and third circuits as claimed in Appellants' claim 14.

Elliott discloses a system for communicating voice and data over a packet-switched network, where the packet-switched network is adapted to coexist and communicate with a legacy PSTN. The system permits packet switching of voice calls and data calls through a data network. The system includes soft switch sites, gateway sites, a data network, a provisioning component, a network event component and a network management component. The system interfaces with customer facilities, carrier facilities, and legacy signaling networks in order to handle calls between any combination of on-network and off-network callers. The soft switch sites, which provide call processing for the voice network architecture, manage the gateway sites, requesting the set-up and tear-down of calls. The gateway sites originate and terminate calls between calling parties and called parties through the data network. The data network connects one or more of the soft switch sites to one or more of the gateway sites. (Elliott, Abstract).

Elliott, however, is devoid of any teaching or suggestion of the first, second, and third circuits as claimed in Appellants' claim 14. Rather, a majority of Elliott is directed toward network-level descriptions of the operation of the system for communicating voice and data over a packet-switched network. The only mention of "circuits" in Elliott includes references to circuit switched communications in drawing a distinction between circuit switched communications and data communications, references to permanent virtual circuits (PVCs), and references to calls being circuits (e.g., DS0s). These circuits clearly are not circuits as claimed in Appellants' claim 14. Furthermore, although Elliott

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includes a description of a general purpose computer (See Figure 70), Elliott is devoid of
any teaching or suggestion of first, second, and third circuits as claimed in Appellants'
claim 14.

For example, Elliott fails to teach or suggest a second circuit for receiving quality-
of-service information associated with voice calls currently being transmitted toward a
second gateway via the first circuit. Elliott is devoid of any teaching or suggestion of
such an arrangement of circuits.

Similarly, for example, Elliott fails to teach or suggest a third circuit for (a)
calculating, based on the received quality-of-service information, a parameter indicative
of a congestion status of a network path between the first gateway and the second
gateway and (b) determining, by comparing said parameter to at least one threshold,
whether a new voice call is to be accepted into the internet protocol network via the first
circuit. Elliott is devoid of any teaching or suggestion of such an arrangement of circuits.

Thus, at least for these reasons, Elliott fails to teach or suggest the first, second,
and third circuits as claimed in Appellants' claim 14.

Furthermore, RFC 3550 fails to bridge the substantial gap between Elliott and
Appellants' claim 14.

RFC 3550 discloses the Real-Time Transport Protocol (RTP). Specifically, RFC
3550 discloses message formats, header fields, session multiplexing, and other specifics
of the RTP. Additionally, RFC 3550 discloses details of the RTP Control Protocol
(RTCP), such as packet formats, packet send and receive rules, and other specifics of the
RTCP.

RFC 3550 fails to teach or suggest the first, second, and third circuits of
Appellants' claim 14. Rather, RFC 3550 provides a description of the Real-Time
Transport Protocol (RTP). Elliott is devoid of any teaching or suggestion of the manner
in which the described RTP functions may be supported in hardware, much less the first,
second, and third circuits as claimed in Appellants' claim 14.

Thus, Elliott fails to teach or suggest the first, second, and third circuits as
claimed in Appellants' claim 14.

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As such, Elliott and RFC 3550, alone or in combination, fail to teach or suggest the first, second, and third circuits of Appellants' claim 14 and, thus, fail to teach or suggest Appellants' claim 14.

Conclusion:

Thus, at least for these reasons, claim 14 is allowable over the combination of Elliott and RFC 3550. Furthermore, since all of the dependent claims that depend from independent claim 14 include all the limitations of independent claim 14 from which they ultimately depend, each such dependent claim also is allowable over the combination of Elliott and RFC 3550.

Therefore, the rejection should be withdrawn.

II.   Claims 16-17

Claims 16-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Elliott in view of RFC 3550, further in view of Hooper et al. U>S. 20040252686 A1, hereinafter Hooper. The rejection is traversed.

Claims 16 and 17 depend from independent claim 14, and recites additional limitations therefor. As described hereinabove, Appellants' claim 14 is patentable over Elliott in view of RFC 3550. This ground of rejection applies only to dependent claims 16 and 17, and is predicated on the validity of the rejection under 35 U.S.C. 103(a) given Elliott in view of RFC 3550. Thus, since the rejection under 35 U.S.C. 103(a) given Elliott in view of RFC 3550 has been overcome, as described hereinabove, and there is no argument put forth by the Office Action that Dohm supplies that which is missing from Elliott and RFC 3550 to render Appellants' independent claim 14 unpatentable, the rejection of Appellants' claims 16 and 17 cannot be maintained.

Therefore, the rejection should be withdrawn.

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Conclusion

Thus, Appellants submit that all of the claims presently in the application are allowable.

For the reasons advanced above, Appellants respectfully urge that the rejection of claims 1-22 is improper. Reversal of the rejection of the Final Office Action is respectfully requested.

Respectfully submitted,

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CLAIMS APPENDIX

1.   (previously presented) A method for determining whether to accept a new call to be routed from a first location to a second location via a network path in an IP network, comprising the steps of:

(a) obtaining, at the first location, information relevant to the quality of service of voice calls being transmitted from the first location to the second location via the network path;

(b) calculating, based on said information, a parameter indicative of a congestion status of the network path from the first location to the second location; and

(c) accepting the new call into the IP network at the first location in the case of said parameter not exceeding an upper threshold.

2.   (original) The method of claim 1 wherein said new call is accepted into the IP network at a reduced bandwidth in the case of said parameter exceeding a lower threshold.

3.   (original) The method of claim 1 where said new call is not accepted into the IP network in the case of said parameter exceeding the upper threshold.

4.   (previously presented) The method of claim 1 wherein the information obtained is a number of sent packets transmitted from said first location to said second location via the network path, wherein the number of sent packets comprises a number of lost packets, a number of late packets and a number of received packets.

5.   (previously presented) The method of claim 1 wherein the information obtained is a delay of received packets transmitted from said first location to said second location via the network path.

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6.   (previously presented) The method of claim 1 wherein the information obtained is a delay variation of received packets transmitted from said first location to said second location via the network path.

7.   (original) The method of claim 1 wherein the information is obtained on a periodic basis.

8.   (original) The method of claim 1 wherein the information is obtained on an exception basis using an immediate report.

9.   (original) The method of claim 1 wherein the parameter is identified as a packet lost ratio (PLR).

10.   (original) The method of claim 9 wherein PLR is defined as

$$PLR = \frac{(\text{lost packets} + \text{late packets})}{(\text{received packets} + \text{lost packets} + \text{late packets})} .$$

11.   (original) The method of claim 2 wherein bandwidth is reduced for a newly accepted call by selecting a first encoder to encode the new voice call information in a bandwidth that is smaller than bandwidths of other calls accepted in the network that are encoded by a second encoder.

12.   (previously presented) The method of claim 2 wherein the bandwidth of a newly accepted call is reduced by increasing the packet size for said newly accepted voice call, wherein the packet size is indicative of a size of a corresponding voice sample.

13.   (original) The method of claim 2 wherein the bandwidth of a newly accepted call is reduced by activating the characteristic of silence suppression for said newly accepted voice call.

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14.   (previously presented) Apparatus comprising a first gateway for interfacing voice call data from a public switch telephone network to an internet protocol network, said first gateway comprising:

a first circuit for passing said voice call data of voice calls to the internet protocol network;

a second circuit for receiving quality-of-service information associated with voice calls currently being transmitted toward a second gateway via the first circuit; and

a third circuit for:

calculating, based on the received quality-of-service information, a parameter indicative of a congestion status of a network path between the first gateway and the second gateway; and

determining, by comparing said parameter to at least one threshold, whether a new voice call is to be accepted into the internet protocol network via the first circuit.

15.   (original) The apparatus of claim 14 wherein said first circuit further comprises one or more Ethernet cards that are connected to the internet protocol network.

16.   (original) The apparatus of claim 14 wherein said second circuit is at least one strongarm card.

17.   (original) The apparatus of claim 16 wherein the strongarm card is connected to the Ethernet card via a host CPU circuit.

18.   (previously presented) The apparatus of claim 14 wherein the third circuit determines whether the new voice call is to be accepted into the internet protocol network via the first circuit by comparing said parameter to a plurality of thresholds.

19.   (previously presented) The apparatus of claim 14 wherein the parameter is a packet loss ratio defined as

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$$PLR = \frac{(\text{lost packets} + \text{late packets})}{(\text{received packets} + \text{lost packets} + \text{late packets})} .$$

20.   (previously presented) The apparatus of claim 19 wherein the third circuit compares the packet loss ratio to a lower threshold and if the packet loss ratio is less than the lower threshold, the new voice call is accepted into the internet protocol network.

21.   (previously presented) The apparatus of claim 19 wherein the third circuit compares the packet loss ratio to the lower threshold and an upper threshold, and if lower threshold < packet loss ratio < upper threshold, the new voice call is accepted into the internet protocol network at a reduced bandwidth.

22.   (previously presented) The apparatus of claim 19 wherein the third circuit compares the packet loss ratio to the upper threshold, and if the packet loss ratio is greater than the upper threshold, the new voice call is blocked from entering the internet protocol network.

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EVIDENCE APPENDIX

None

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RELATED PROCEEDINGS APPENDIX

None

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